CLAIMS

Please amend Claims 4, 5 and 20 as follows:

1. (Original) A method of performing region-of-interest editing of a video stream in the compressed domain, said method comprising:

receiving a video stream frame comprising an unwanted portion and a region-of-interest portion;

compressing said video stream frame to obtain a compressed video stream frame; and

editing said compressed video stream frame to modify said unwanted portion and obtain a compressed video stream frame comprising said region-of-interest portion.

2. (Original) The method of claim 1, wherein said compressed video stream frame conforms to a defined video stream frame compression standard including the MPEG-2 standard.

3. (Original) The method of claim 2, wherein said editing said compressed video stream frame is selected from the group consisting of skipping macroblocks and deleting discrete cosine transform coefficients in said unwanted portion.

4. (Currently Amended) The method of claim [[2]] 3, wherein said skipping macroblocks comprises skipping macroblocks located above, below and to the right of said region-of-interest portion for predictive coded (P) frames and bi-directionally predictive-coded (B) frames.

5. (Currently Amended) The method of claim [[2]] 3, wherein said deleting discrete cosine transform coefficients comprises: deleting discrete cosine transform coefficients to the left of said region-of-interest portion for predictive coded (P) frames and bi-directionally predictive-coded (B) frames; and deleting discrete cosine transform coefficients outside said region-of-interest portion for intracoded (I) frames.

6. (Original) The method of claim 1, further including transmitting said compressed video stream frame from a first location to a second location for decoding and displaying of said video stream at said second location.

7. (Original) The method of claim 1, wherein said region-of-interest portion is defined by changing position coordinates in said video stream.

8. (Original) The method of claim 7, further including using a head-tracking system to locate in real time said changing positional coordinates of said region-of-interest portion.

9. (Original) The method of claim 6, further including receiving and decoding said compressed video stream frame at said second location.

10. (Original) The method of claim 9, further including displaying said edited video stream frame at said second location.

11. (Original) The method of claim 1, wherein said modifying of said unwanted portions is performed in a manner that avoids modifying macroblocks proximate to said region-of- interest, thereby establishing a guard ring of pixels around said region-of-interest.

12. (Original) The method of claim 1, wherein said region-of-interest portion is selected from an image of a user at said first location and an image of robotic surrogate environment at said second location, said user and said robotic surrogate in communication with each other via a computer network.

13. (Original) The method of claim 1, wherein said video stream frame is edited in real time.

14. (Original) A region-of-interest editing system for performing region-of-interest editing of a video stream in the compressed domain, said system comprising:

a computer system for receiving a video stream frame comprising an unwanted portion and a region-of-interest portion;

a compressor for compressing said video stream frame to obtain a compressed video stream frame, said compressor in communication with said computer system; and

a region-of-interest editor for editing said compressed video stream frame to modify said unwanted portion and obtain a compressed video stream frame comprising said region-of-interest portion, said region-of-interest editor in communication with said compressor.

15. (Original) The region-of-interest editing system of claim 14, wherein said region-of-interest editor is operable to edit said compressed video stream frame by skipping macroblocks located above, below and to the right of said region-of-interest portion for predictive coded (P) frames and bi-directionally predictive-coded (B) frames in said video stream.

16. (Original) The region-of-interest editing system of claim 14, wherein said region-of-interest editor is operable to edit said compressed video stream frame by deleting discrete cosine transform coefficients to the left of said region-of-interest portion for predictive coded (P) frames and bi-directionally predictive-coded (B) frames, and deleting discrete cosine transform coefficients outside said region-of-interest portion for intracoded (I) frames.

17. (Original) The region-of-interest editing system of claim 14, wherein said region-of-interest portion is defined by changing positional coordinates in said video stream.

18. (Original) The region-of-interest editing system of claim 17, further including a head-tracking system for locating in real time said changing positional coordinates of said region-of-interest portion.

19. (Original) The region-of-interest editing system of claim 14, further including:

a user immersion location for accommodating a user;

a remotely operable robotic surrogate disposed remotely from and in communication with said user at said user immersion location, said user capable of remotely operating said robotic surrogate from said user immersion location to display said video;

a computer system for recording said video stream at said user immersion location and for transmitting said compressed video stream frame from said user immersion location to said robotic surrogate; and

a computer system for decoding and displaying said compressed video stream frame on said robotic surrogate.

20. (Currently Amended) The region-of-interest editing system of claim [[14]] 19, further including a computer system for recording full-frame size video stream frames at said robotic surrogate ~~location~~;

a transmitter for transmitting said compressed video stream frame from said robotic surrogate to said user immersion location; and

a decoder for decoding and displaying said compressed video stream frame at said user immersion location.

21. (Original) A computer-readable medium including computer implementable instructions stored therein, said instructions for causing a computer system to perform a method of region-of-interest editing a video stream in the compressed domain, said method comprising:

receiving a video stream frame comprising an unwanted portion and a region-of-interest portion;

compressing said video stream frame to obtain a compressed video stream; and

editing said compressed video stream frame to modify said unwanted portion and obtain a compressed video stream comprising said region-of-interest portion.

22. (Original) The computer-readable medium of claim 21, wherein said compressed video stream frame comprises a video stream conforming to a defined video stream compression standard including the MPEG-2 standard.

23. (Original) The computer-readable medium of claim 21, wherein said instructions include instructions for skipping macroblocks located above, below and to the right of said region-of-interest portion for predictive coded (P) pictures and bi-directionally predictive-coded (B) pictures in said video stream frame.

24. (Original) The computer-readable medium of claim 21, wherein said instructions include instructions for deleting discrete cosine transform coefficients to

the left of said region-of-interest portion for predictive coded (P) pictures and bi-directionally predictive-coded (B) pictures, and deleting discrete cosine transform coefficients outside said region-of-interest portion for intracoded (I) pictures in said video stream.

25. (Original) The computer-readable medium of claim 21, wherein said region-of-interest portion is defined by changing position coordinates in said video stream.

26. (Original) The computer-readable medium of claim 21, wherein said instructions include instructions for using a head-tracking system to locate in real time said changing positional coordinates of said region-of-interest portion.

27. (Original) The computer-readable medium of claim 21, wherein said instructions included instructions for modifying said unwanted portions in a manner that avoids modifying macroblocks proximate to said region-of- interest, thereby establishing a guard ring of pixels around said region-of-interest.